

NOTES ON SOME NEMATODES IN THE MUSEUM OF THE LIVERPOOL SCHOOL OF TROPICAL MEDICINE

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I. *ECHINURIoidES PLECTROPTERI* n.gen., n.sp.

Host : Spurwinged goose, *Plectropterus* sp. Locality : Northern Nigeria.

The worms are of small size, the two males measuring 4·2 and 4·4 mm. in length, by 0·12 and 0·09 mm. in greatest breadth, respectively.

The body tapers slightly both anteriorly and posteriorly, the tapering tail ending in a blunt point. The cuticle is transversely striated throughout, the striations occurring at intervals of about 7 μ .

The cervical papillae are slightly in front of the nerve ring, about 135 μ from the anterior extremity ; the excretory pore is slightly more anterior.

The cuticle is provided with four longitudinal rows of spines which lie laterally, one on each side of the lateral lines. They commence a little behind the anterior end of the oesophagus at a point about 55 μ from the anterior extremity of the worm, and become more concentrated in front of, and behind, the anus, where they have the appearance of papillae.

The cervical cuticle is provided with four cordons ; these appear to arise from cuticular thickenings at the base of the lateral lips and run backwards, one on each side and close to the lateral lines, to terminate about 100 μ from the anterior extremity ; they are extremely fine and slender and do not anastomose on the lateral surfaces posteriorly.

The head is provided with four lips, two lateral, and a dorsal and a ventral. The former measure 13 by 15 μ , and the latter, 13 by 26 μ , in height and maximum breadth, respectively. The dorsal and ventral lips are each provided with a pair of papillae at their bases. The mouth leads into a comparatively short vestibule about 22 μ in length; the dorso-ventral diameter is distinctly greater than the lateral. The oesophagus measures 1.3 mm. in length and 55 μ in maximum breadth, and is divided into two parts,

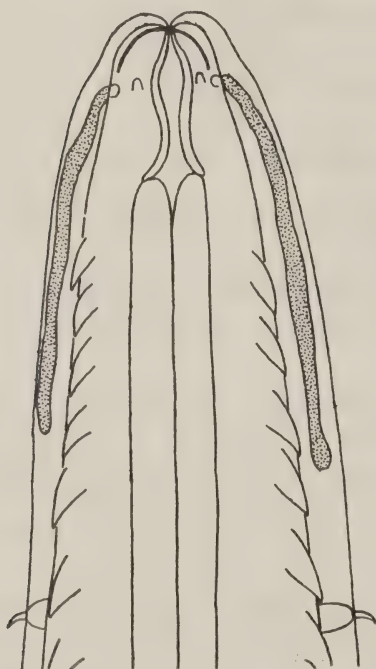


FIG. 1

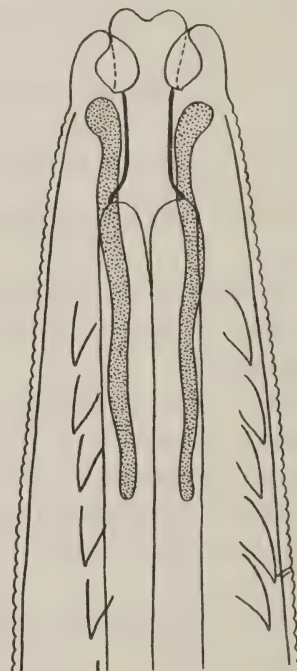


FIG. 2

FIG. 1. *Echinurioides plectropteri*. Anterior extremity. Ventral view. $\times 650$.

FIG. 2. *Echinurioides plectropteri*. Anterior extremity. Lateral view. $\times 650$.

the anterior measuring about 364 μ . The ratio between the length of the oesophagus and that of the worm is 1 to 3.4. The anus opens at a point 133 μ from the tip of the tail, and the width of the body at the anus is about 55 μ .

The spicules are unequal; the larger measures about 851 μ and the shorter about 145 μ in length.

In the possession of cuticular cordons and four longitudinal rows of spines this worm resembles the genus *Echinuria*, but it differs markedly from this genus in not possessing caudal alae, in that the cordons do not anastomose posteriorly, and in having four lips.



FIG. 3. *Echinurioides plectropteri*. Caudal extremity of male. Lateral view. $\times 487$.

These differences, it is considered, are sufficiently distinctive to warrant the erection of a new genus and the generic name *Echinurioides* is suggested, with *E. plectropteri* as the specific name.

II. *AMPLICAECUM CAUSI* n.sp.

Host : *Causus rhombatus*. Position : Small intestine. Locality : Northern Nigeria.

The worm is of medium size, 15.5 to 23 mm. in length, by 0.52 to 0.65 mm. in thickness. The body gradually tapers towards the head, while posteriorly, in both sexes, the tail has the form of a short sharply-pointed cone. The excretory pore opens at a distance of about 500 to 686 μ from the anterior extremity of the worm, and the cervical papillae are found slightly more posterior at distances of 530 to 748 μ from the same point. There is a well-marked neck, the width of which is from 155 to 170 μ ; the cuticle is provided with very fine striations.

The three lips are more or less rectangular in shape and measure about 135 by 148 μ in height and maximum breadth, respectively. The dorsal lip is provided with two horseshoe-shaped papillae; each lateral lip possesses only one papilla, the outline of which is complete;

the pulp is massed into two large equal lobes with evenly-rounded extremities. Dentigerous ridges are present on the margins of the lips which they follow closely throughout. The small interlabia measure about 44μ in height.

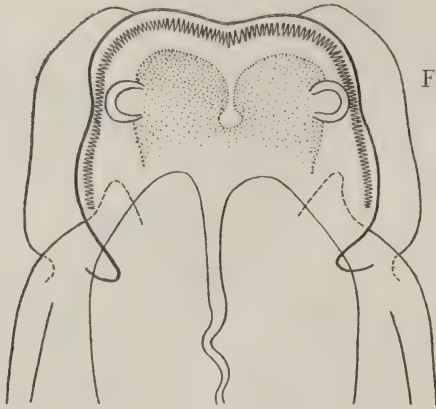


FIG. 4

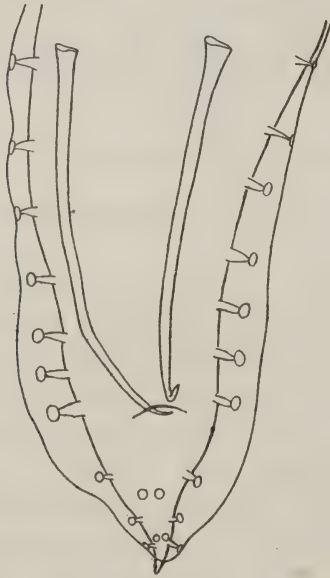


FIG. 6

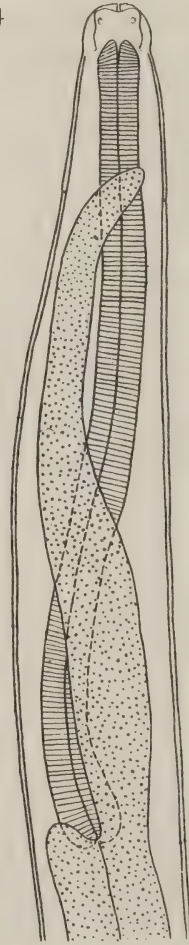


FIG. 5

FIG. 4. *Amplicaecum causi*. Head. Dorsal view. $\times 256$.

FIG. 5. *Amplicaecum causi*. Oesophageal portion. Dorsal view. $\times 90$.

FIG. 6. *Amplicaecum causi*. Caudal extremity of male. Ventral view. $\times 90$.

The oesophagus measures 2.3 to 2.8 mm. in length, by about 0.14 mm. in breadth, and the ratio between the length of the oesophagus and that of the worm is from 1 to 6 or 8.5. A large intestinal caecum is present, lying dorsally to the oesophagus, terminating at a point varying from 450 to 936 μ from the anterior extremity.

The males measure 20 to 23 mm. in length, by 0.5 to 0.6 mm. in thickness; the anus opens at a point about 208 μ from the caudal extremity, and the width of the body at the anus has approximately the same measurement. Well-developed caudal alae are present. There are about thirteen pairs of preanal, and five pairs of postanal papillae arranged as shown in Fig. 6. The spicules are equal and taper slightly and have a length of 774 to 803 μ .

The females measure 15.5 by 0.5 mm. to 20.6 by 0.6 mm. The vulva opens anterior to the middle of the body, about 6.3 to 8.1 mm. from the anterior extremity. The caudal extremity is about 176 μ from the anus, at which point the breadth of the body has approximately the same measurement. As none of the females were gravid the dimensions of the eggs cannot be given.

Reference to the literature relating to this genus shows that no species has yet been recorded from a snake.

A. colorum (Baylis, 1919) from an eagle differs in length, in the absence of papillae from the dorsal lip, in the shape of the lips, and in the position of the vulva.

A. africanum Taylor, 1924, from a toad is also a longer worm and the ratio between the length of the oesophagus and the length of the worm is 1 to 11, as compared with a ratio of 1 to 8.5 in the specimens here described. Taylor's species also differs in having only three postanal papillae, somewhat larger lips, and in the possession by some specimens of a second intestinal caecum.

A. gedoelsti Yorke and Maplestone, 1926, also from a toad, possesses spicules which are longer than those in the specimens here described and is peculiar in that the pulp of the dorsal lip sends out lateral and apical processes; the female worms are of a much greater length.

A. varani Baylis and Daubney, 1922, differs greatly in possessing thirty-two pairs of preanal papillae, two papillae on each lateral lip, in the absence of caudal alae, and in having much shorter spicules.

A. involuta (Gedoelst, 1916) from a chameleon differs chiefly in the

males' being considerably shorter in length and possessing longer spicules; there are only three postanal papillae on the tail of the male.

It is thought that the differences enumerated here are sufficient to justify the erection of a new species for the worm in question and the specific name *Amplificaecum causi* is suggested.

III. *TRICHURIS OVIS* IN *DAMILISCUS TIANG*

Several specimens of a worm which is indistinguishable from *T. ovis* were taken from the caecum of a Topi shot by the author, near Masaka, Uganda.

This nematode does not hitherto appear to have been recorded from this antelope.

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